

REMARKS/ARGUMENTS

Reconsideration of this application is requested. Claims 1-26 continue to be pending in the application and all stand rejected on the basis of prior art.

Independent claims 1-4 and 14-17 have been amended in order to more particularly point out and distinctly claim that which applicants regard as their invention. In particular, these claims have been amended to specify that the upper surface of the produced substrate blank is released from the upper mold member before the produced substrate blank is cooled to a temperature around or less than the glass transition temperature as to claims 1-4. Similarly, claims 14-17 have been amended to require that the upper surface of the molded article is released from the upper mold member before the molded article is cooled to a temperature around or lower than the glass transition temperature. Basis for these amendments appear throughout the specification and in particular page 16, section [0034] which states that after the press-molding is completed, the upper surface of the molded article is released from the upper mold. The molded article is then cooled to a temperature around, or lower than, the glass transition temperature while it is carried to a take-out position. Accordingly, basis for the amendments to claims 1-4 and 14-17 appears in the original description of the invention and therefore is not directed to added subject matter.

The significance of these added requirements will be apparent from the remarks that follow and, in particular, the fact that the primary reference describes molding then cooling to below the glass transition temperature before the object is taken out of the mold, a procedure that is a distinct contrast to the procedures defined and claimed in the present application.

In the present Office Action, Yamamoto (JP 08-040729) ("Yamamoto" hereinafter) is the primary reference in the four separate rejections and applicants thus will address and discuss Yamamoto. In the last paragraph on page 3 of the Office Action, the Examiner refers to paragraph 3 of Yamamoto and states that "paragraph 3 of Yamamoto notes that the glass material is molded is cooled to a temperature below its glass transition temperature the press pressure is removed, meaning the mold members are released and then it is taken out. Since the molded material is only cooled to a temperature below its transition point temperature prior to being released from the mold, it would thus mean that the glass material after being released

would require to be cooled to room temperature.” This is not a correct understanding of the cited reference.

Actually, in the portion noted by the examiner, Yamamoto describes (literally) “and the temperature of the mold members is cooled to a temperature sufficiently below the glass transition temperature of the glass material, the press pressure is removed, finally, the mold is opened and an optical element molded product is taken out”.

In paragraph 6 of Yamamoto, Yamamoto describes that “the above process for producing an optical element (this refers to the process including the above steps that the Examiner quotes) is widely disclosed in a considerable number of patent publications, while most of them relate to the molding of convex lenses, and with regard to concave lenses, the above process is merely disclosed as ones of Examples in JP 59-116137A, JP 59-121124A, JP 59-121126A, JP 59-123629 and JP 60-118642.”

As is clear from the above quotation, Yamamoto refers to a concave lens and a convex lens as optical elements and neither of these two lens structures is a substrate blank nor a substrate having flat surfaces.

In Yamamoto, further, “the glass material is molded is cooled to a temperature below its glass transition temperature the press pressure is removed” -- that is, the molded glass material and the mold members are cooled to a temperature lower than the glass transition temperature of the glass material before the press pressure is removed. In contrast, in the present invention and as the claims specifically require, the press pressure is removed before the molded glass material and the upper mold member are cooled to the glass transition temperature.

The present specification, page 16, section 0034, makes this difference clear. The section 0034 describes “After the press-molding is completed, the upper surface of the molded article is released from the upper mold member,... The molded article is cooled to a temperature around, or lower than, the glass transition temperature while it is carried to the take-out position.” That is, in the present invention, the upper surface of the molded article is released from the upper mold member before the molded article is cooled to a temperature around, or lower than, the glass transition temperature.

Incidentally, the above “...” omitted portion refers to an optional operation. This optional operation may be included after the upper surface of the molded article is released from the

upper mold member as is described as “the lower mold member is stopped between the pressing position and the take-out position”. And, “the upper surface of the molded article on the lower mold member is pressed with a pressing mold to correct the distortion of the molded article, and then the lower mold member with the mold article thereon is moved to the take-out position.” As is clear here, this operation has nothing to do with the press-molding and may be carried out or may not be carried out.

The Examiner appears to limit the cooling in the present invention to the cooling to room temperature as he describes “the glass material after being released would require to be cooled to room temperature.” In the present invention, however, the glass material after being released requires first to be cooled to “a temperature around, or lower than, the glass transition temperature” (*see the discussion above*) before it is cooled to room temperature. Therefore, the present invention clearly differs from what Yamamoto discusses. As explained in previous responses, again, is not even Yamamoto’s invention.

Yamamoto requires the pressure of a gas as shown, for example, in Fig. 1 in order to have the glass material in contact with the transfer regions of molding surfaces of mold members by means of the pressure (*see the last 3 lines of section (or paragraph) 0016 of Yamamoto*). In the present invention, a substrate blank and a substrate having smooth surfaces can be obtained without any required use of such a gas pressure. In this point, therefore, the present invention also differs from the invention of Yamamoto.

The Yamamoto reference is either the sole or primary reference in all of the four prior art-based rejections. Having distinguished the claims from the primary reference, the secondary references, where cited, are no longer appropriate as patentability has been established.

Reconsideration and allowance are solicited. Should the examiner require further information, please contact the undersigned.

The secondary references are discussed in the responses filed November 4, 2005 and June 12, 2006 and need not be repeated here. These remarks and observations are incorporated by reference.

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Respectfully submitted,

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